

USAWC STRATEGY RESEARCH PROJECT

**SECURING LAND VICTORY IN THE TWENTY-FIRST CENTURY**

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## **ABSTRACT**

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The fundamental question emerging from this premise relates to the size of the Army. Is the Total Army currently sized to conduct such extensive operations such as regime change and stability operations for an extend time period? Can the current Army support US strategic objectives as identified in the QDR and 2006 National Military Strategy? Over the last five years, the US Army has implemented numerous force structure changes and rebalanced its manpower in order to meet the high demand for troops and units, all the while attempting to minimize stress on the force. None the less, the high demand for units and soldiers required to conduct the Global War on Terrorism highlights the Army's limitations and its inability to adhere to the Department of Defense rotation planning factors. The following analysis, conducted outside of the formal army force structure modeling, finds that the Army's current end-strength is insufficient to meet current and anticipated 21<sup>st</sup> century demands. It is further supported by conducting an open source review of force structure recommendations by influential organizations outside of the Department of Defense. The paper will identify end-strength shortfalls and discuss their impact upon the credibility of the Department of Defense.



## SECURING LAND VICTORY IN THE TWENTY-FIRST CENTURY

Landpower is the dominant form of military power in the modern world. A state's power is largely embedded in its army and the air and naval forces that support those ground forces. Simply put, the most powerful states possess the most formidable armies. Therefore, measuring the balance of landpower by itself should provide a rough but sound indicator of the relative might of rival great powers.<sup>1</sup>

—John J. Mearsheimer,  
The Tragedy of Great Power Politics

The United States is currently engaged in an extended ground-force conflict which has significantly strained the nation's existing ground-forces capabilities. The length and level of the current conflict require that the Department of Defense (DoD) take immediate action to provide the necessary resources required to support the national military strategy in the twenty-first century. DoD must reconsider the planning assumptions that lead to the size of the current Army and revise those assumptions for the nation's land forces, particularly for the United States Army.

Current Army end-strength, both active and reserve components, must be increased by at least 100,000 up to 180,000 soldiers in order to execute the current existing national security strategy, sustain current deployment tempo, and meet the anticipated 21<sup>st</sup> century land-force demands. The recent experiences of the U.S. Army in conducting the Global War on Terrorism (GWOT) provide the baseline for understanding the requirement to grow the US Army. Comparison of the current Army size with its capability to support operations reveals insufficient resources (Army personnel) to support the National Military Strategy. Over the last five years of GWOT, the US Army has met the National Military mission, only by straining current forces. In order to meet the Combatant Commanders current demands for units and troops, the US Army has grossly exceeded DoD rotation policies for units and personnel. This paradigm is not sustainable.

During the same five years, the US Army has implemented numerous force structure changes and rebalanced its manpower in order to meet the high demand for troops and units, all the while attempting to minimize stress on the force. None the less, the high demand for units and soldiers required to conduct GWOT highlight the Army's limitations and its inability to adhere to the DoD rotation planning factors.

Thus we must seek answers to the following questions:

- Can the United States maintain the most powerful army in the world while sustaining the current pace of operations over the next five to ten years?

- Do current planning assumptions incorporate lessons learned for the future?
- Is the Army force structure balanced to support an expeditionary environment?

The following analysis, conducted outside of the formal army force structure modeling, finds that the Army's current end-strength is insufficient to meet current and anticipated 21<sup>st</sup> century demands. The exact number of troops required will depend on emerging U.S. strategy, the role our military, especially our land power will play in executing the strategy. However, we can reasonably estimate the range of land forces required to meet these operational demands, barring a significant and unforeseen change in U.S. strategy, U.S. government capabilities, or the security environment. In order to maintain credibility its Department of Defense s with the people of the United States, the U.S. Congress and the American soldier, the US Army must be larger!

#### How Has the Change in National Security Themes and Strategy Impacted Force Structure?

The methodology for reviewing the force structure planning assumptions and the size of the army relies on a review of historical national military strategy. A change in the national strategy led to reductions in U.S. Army force structure in the 1990s. By identifying projected Army force utilization plans and comparing these plans with existing force structure, stress points for employment of U.S. Army forces can be identified. A shortage of land forces limits the Army's ability to conduct operations across the spectrum of operations, while concurrently defending the homeland. While this methodology, by its very nature, is imperfect and relies upon the detailed work of other analysts, the outcome consistently supports the key arguments for growth of the all-volunteer army.

Many active component units have served in numerous rotations to Afghanistan and Iraq, despite the Army's efforts to create ten additional combat brigades in order to reduce the number of rotations for each unit. Another more telling factor regarding the stress on the U.S. Army is the pace of current operations of soldiers and units. Current DoD policy states that active Army forces will not be deployed more than one year in every three years, and reserve Army forces not more than one year every six years. Yet many active and reserve units have been more frequently deployed than the guidelines allow.<sup>2</sup> The overuse of soldiers and units in the short term can be seen as a rational solution for short-term operations, but when the conflict exceeds four years and numerous policy documents declare that the country should be prepared for a long war, then the Army must be increased to support the war. Short-term solutions are no longer tenable. RAND Corporation recently completed a study, titled *Stretched Thin*, sponsored by the Department of the Army, G-3, that assessed the current mix of AC and

RC units and their ability to support operations with eight to twenty brigades deployed. RAND concluded that with more than fourteen brigades deployed, “the army finds itself in serious difficulty to fulfill other missions and unable to adhere to the DoD rotation policy.”<sup>3</sup>

Historically, the power struggles between sovereign nations has been seen through two lenses, the measure of a country’s land power and the ability of a country to dominate other great countries, which in turn govern the behaviors of the respective powers. Dr. Mearsheimer asserts that naval power and air power set the conditions for successful landpower employment. Further, he contends that neither naval nor air power nor nuclear power lead to subjugation of the enemy. He then concludes that “no war has ever been won without the employment of battalions to subjugate the enemy.”<sup>4</sup> While technology continues to influence the conduct of war, the essential component for the successful completion of war is a large standing army.

#### How Have the Effects of Cold-War Deterrence and Containment Impacted the Army?

During the Cold War, the Soviet Union was the perceived international threat and focal point for developing contingency plans that established the demand for ground forces. Since large land forces are expensive to maintain and sustain, the U.S. leadership always sought to maintain adequate force structure while minimizing strategic risk. A review of the U.S. national security posture over three specific time periods: Cold War, post-Cold War, and the Global War on Terrorism indicates how well the United States has managed to maintain the Army while balancing current risk with the existing force structure.

During the Cold War (1946–1989), the United States relied heavily on “diplomatic and economic means, supplemented by arms-control agreements, military alliances, and forward-positioned forces to contain Soviet power.”<sup>5</sup> The primary national strategy and policy associated with this era was a dual-tracked solution known as containment and deterrence, which lasted through the end of the 1980s. “Deterrence has utility across the national security spectrum from normal peacetime competition to unrestrained war with weapons of mass destruction. Deterrence strategy is based upon the premise that aggression is the least suitable and desirable choice.”<sup>6</sup> During the Cold War, U.S. deterrence strategy facilitated the build-up of a large strategic Air force and technologically focused strategy. The development of nuclear weapons and the policy regarding use of nuclear weapons became a focal point in deterrence strategy. This strategy was eventually known as mutually assured destruction (MAD), because both the United States and the Soviet Union had the nuclear capability to destroy each other’s countries, cities, and armies many times over. But, in times of relative peace without an armed

conflict (read shooting war), the policy of deterrence provided the national leaders with the much flexibility.

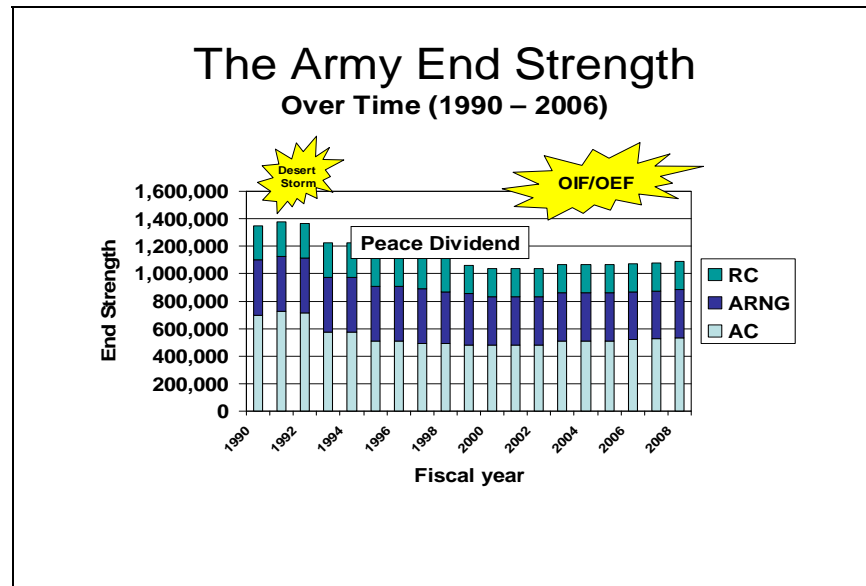
The other key strategy during the Cold War was containment. In essence, the nation's strategy was founded on threat-based planning and focused on a large conventional war in distant theaters. Within the Department of Defense, the effort was embodied in a comprehensive plan with European allies to counter the Soviet threat; it relied on conventional forces to counter the threat. "Planning issues debated during the Cold War, included the size of the attack to be expected, the amount of strategic warning NATO would have to mobilize defenses on the Central front, the importance of the NATO flanks, and the potential for escalation."<sup>7</sup> Yet, when President Reagan came to power in 1982, he believed that the policy of containment with respect to the Soviet Union was inadequate because it served to appease the Soviets, but not to intimidate them. At the time, the Soviet Union was still seen as successfully ratcheting up its sphere of influence, evident in Afghanistan and other areas in the world. President Reagan thus initiated a policy (NSC-68) which employed all of the instruments of government and emphasized the strength of the United States.

President Reagan believed the United States should defeat the Soviets by the use of an expensive arms race that the Soviets could not match...Thus, containment was not enough: Defeating the Soviet Union, via bankrupting its economy, was ushered in as U.S. policy in the 1980s.<sup>8</sup>

For the U.S Army, the technology infusion of the Reagan era developed into an investment strategy focused upon the development of the "Big 5" systems: the Bradley, the Abrams, the Patriot, the Blackhawk, and the Apache. This effort was instrumental in rebuilding the Army after Vietnam. It set the stage for successful prosecution of later wars. The Army of the Cold War was an Army of deterrence and containment; it was positioned forward in Europe and served as a counter balance to the threat of the Soviet Union. The 'Big-5' technology insertions of the 1980s enhanced the force structure and made the U.S. Army a credible land force rival to the Soviet Union. The technology infusion also set into motion two counter-balancing investment streams: the U.S. would maintain a sizeable standing force by investing in technology to offset the need for a much larger standing force. With the fall of the Berlin Wall in 1989, the Cold War ended. Then the threat of the Soviet Union receded. The United States government accordingly reconsidered its investment in maintaining such a force. National leaders began to deny the need for a robust defense establishment; instead, they focused on building a globally interlocked economic environment, which became known as globalization.



## How was a Reduced Force Structure Justified in 1990s?



(Source: G-3, HQDA)

Table 1.

An understanding of the international environment and national concerns in the 1990s helps us appreciate how the force structure and end strength were significantly reduced, even though the national military strategy remained essentially unchanged despite an increase in small-scale contingencies and operations. The chart above graphically summarizes the total Army end strength for a period of 16 years, from 1990 to the projected Army end strength in 2006. In 1990, the Army had approximately 1,505,000 soldiers filling out a force structure that consisted of five corps, eighteen active component divisions, and ten reserve component divisions.

As the Soviet power declined in the late 1980's, President Bush-41 initiated a review of defense strategy. But, this national military review came to an abrupt halt in August 1990, when Iraq attacked and occupied Kuwait. To the international community, this assault was particularly heinous and represented a breach of Kuwait's sovereignty, violating a basic tenet of the United Nations (UN) guidance on international relations. Under the auspices of the UN, the United States quickly built an international coalition and conducted the multinational operation, Desert Storm to curb Saddam Hussein's aggression. While the United States contributed the bulk of the fighting forces, the coalition integrated approximately 30 countries from around the world, to

include Arab nations. The coalition fielded land forces of approximately 842,500 soldiers. The US ground forces employed for the conflict consisted of five divisions and twenty-three brigades - a force of approximately 300,000 soldiers. The brigade slice required for this operation was approximately 13,000 troops. The Army of Desert Storm successfully executed the operation with an Army that had been built over a period of twenty years.

The performance of the Air Force during Desert Storm fostered a debate within the U.S. defense establishment which became known as the Revolution in Military Affairs. This controversy altered the balance of power between the U.S. services, shifting U.S. reliance on the Army's land-based forces to air power dominance. During the 1990s, the defense establishment invested heavily in technology associated with air power as a primary means to conduct conflicts with other sovereign nations. Another factor, although indirect, which influenced and motivated a review of the size of the U.S. Army was the successful integration and implementation of an international ground force to win the 1991-92 Gulf War. Both air power and the successful integration of coalition forces influenced future planning assumptions for conducting operations, calling into question the need for a sizable standing U.S. Army.

The victory of Desert Storm and the diminished threat of the Soviet Union thus created a public perception of security in the international arena and set the stage for a peace dividend. The U.S. government subscribed to this shift in priorities and sought to reallocate resources that had been previously spent for military purposes, such as forces and weapons. Our nation would convert the use of the national security resources to peacetime purposes, such as housing, education, and social projects.<sup>9</sup> After the success of Desert Storm, the United States conducted numerous national strategic reviews, which culminated in a number of quadrennial assessments that supported a drawdown of the Army force structure and end strength. The three notable 1990s defense strategy reviews were the 1993 Bottom-Up Review (BUR), the 1997 Quadrennial Review (QDR), and the 2001 QDR, each of which advocated a drawdown of force structure and end-strength. Each of these strategy documents led to a reduction of the Army force structure. The bi-polar superpower conflict had diminished, so the U.S. domestic agenda included a drawdown of military forces. Despite the fact that there are still four countries with armies of greater than 1 million soldiers on active duty (Russia, China, India, North Korea)<sup>10</sup>, U.S. leaders have determined that a projected land conflict with any one of these countries was unlikely. Recent threats to national security are perceived to come from regional rogue nations. The BUR strategy called for maintaining sufficient force to conduct two major theaters of war, (MTW) with an army of fourteen active component (AC) divisions, eight reserve component (RC) divisions, and an end-strength of 672,000 active-duty soldiers and 888,000

reserve-component soldiers. The 1997 QDR then called for a force structure of ten AC divisions and eight RC divisions, with an active duty end strength of 486,000 soldiers and reserve component end strength of 682,000 soldiers. The constant strategic theme throughout the 1990s was for reducing units and soldiers in order to invest in future technology while operating in a fiscally constrained environment. By the end of the 1990s, the active army end strength had fallen from 751,000 to 480,000 or a drop of 36%! The reserve component was also reduced from 764,000 to 555,000, a drop of 27%.

Despite declining military personnel strength, the Department of Defense (DoD) still employed a threat-based planning strategy and contented that as a result of technological advancements, ground forces could conduct two short-term theater conflicts, winning one and not losing the other. As the Army force structure and end-strength were reduced, the Army focused on retaining its core operational strength - combat divisions - and accepted risk through losses of combat support and combat service support forces.

In addition to reductions of the force structure and end-strength, planning risks were accepted by relaxing preparations for all levels of kinds of conflict by overlooking the maturity of prospective theaters of operation, such as developed ports of entry; by overlooking rapid strategic deployment; and by minimizing the risk of engagements with weapons of mass destruction (WMD).<sup>11</sup>

During these on-going draw downs, the Clinton administration deployed the services on numerous small-scale contingencies of varying lengths and frequencies. So while the number of small-scale operations increased dramatically during the 1990s, the duration, levels of conflict, and casualties were regarded as low, even though the demand for soldiers increased. The standard planning factor for rotating soldiers into these operations was six months. The administration felt that the Army had adequate force structure and end strength for two major combat operations and retained sufficient force structure to accommodate the “lesser included” contingencies. During the Clinton administration, the number of ground forces eventually declined, but the demand for deploying and deployable units steadily increased.

While the Department of Defense sought to balance resources and invest in technology, the alarm bells began to sound. The Government Accounting Office (GAO) provided reports which claimed that the force structure was “adequate” for the two MTW strategy, although minimal risk was emerging as the army sought to support the small scale contingencies (SSC).

Overall, during the 1990s the administration increased SSC due to a changing international environment, yet tightened DoD budgets and reduced land forces justifying these national security designs on a perceived international environment of no peer competitors. The

strategic planning environment simply provided for an “operational framework of responding to aggression in two discrete regional contingencies.”<sup>12</sup>

#### As the Army Dealt With Times of Uncertainty? (Globalization)

While transformation as a vision and concept began in the early 1990s, only after President Bush’s election did the threat-based strategy of the Cold War recede to be replaced by a capabilities-based strategy. With the election of President George W. Bush in 2000, the new administration sought to fully embrace a new defense transformation.

“On December 11, 2001, while speaking at the Citadel in Charleston, S.C., President Bush revealed plans to transform the armed forces to confront the threats of the 21st century.”<sup>13</sup> Under the leadership of Secretary of Defense Rumsfeld, the DoD embraced the vision of transformation for the future. “Transformation is not only about technology. It is also about: changing the way we think about challenges and opportunities, adapting the defense establishment to that new perspective; and refocusing capabilities to meet future challenges, not those we are already most prepared to meet.”<sup>14</sup>

The DoD sought to develop specific capabilities in an effort to counter ill-defined threats. The 2001 QDR directed our armed force to: “deter aggression and coercion forward in critical regions; swiftly defeat aggression in overlapping major conflicts, while preserving for the president the option for a decisive victory in one of those conflicts, including the possibility of regime change or occupation; and conduct a limited number of smaller-scale contingency operations.”<sup>15</sup>

These new missions altered the threat-based planning assumptions of the last fifty years. The QDR goes on to state that while the planning assumptions are changing, the goals remain the same; “The United States is **not abandoning planning for two conflicts to plan for fewer than two.**” The new paradigm became known as 1-4-2-1 and focused on the missions of homeland defense, forward deterrence, war-fighting missions, and conducting smaller-scale contingency operations. Responding to this change in strategy, the DoD developed a force that was assessed across several combinations of scenarios on the basis of the new defense strategy and force-sizing construct. Accordingly, the capabilities of this force were judged as presenting moderate operational risk, although certain combinations of warfighting and smaller-scale contingency scenarios present high risk.<sup>16</sup>

Regarding land forces, DoD documents began to express force structure risks associated with the conduct of some operations and even smaller-scale contingencies. QDR-2001 specified the number of combat units, as was traditional; it then directed that the force structure

consist of “ten active component divisions and eight ARNG divisions, two cavalry regiments and fifteen enhanced separate brigades (National Guard),”<sup>17</sup> yielding an end-strength of 480,000 AC soldiers and 555,000 RC soldiers.

However, the release of 2001 QDR and the vision of transformation was overshadowed by the terrorist attacks of 9/11. The QDR strategy was quickly revised: The Department of Defense reviewed its fundamental strategy and preceded along three axes—“homeland defense, transformation, and conducting the global war on terror[ism] and pursuing transformation.”<sup>18</sup>

In the 2006 QDR, the Bush administration sought to evaluate transformation efforts and provide the necessary capabilities to win the global war on terrorism. Three emerging concepts relied on ground forces and specifically the reserve component: “change from a static defense, garrison forces to mobile, expeditionary operations; from under-resourced, standby forces (hollow units) to fully equipped and fully manned forces (combat ready); and from a battle-ready force (peace) to battle hardened forces (war).”<sup>19</sup>

QDR 2006 also identified specific U.S. Army combat force structure and combat support, and combat service brigades:

The QDR designated the army build the following force structure: modular brigades in all three army components: 117 in the regular army (42 BCTs and 75 support brigades); 106 in the Army National Guard (28 BCTs and 78 support brigades); and 58 support brigades in the U.S. Army Reserve. This equates to a 46 percent increase in readily available combat power and a better balance between combat and support forces.<sup>20</sup>

Although QDR 2006 clearly identified the existing brigades, the QDR-06 did not balance the demand for units with the available supply, particularly with non-combat units.

#### What Has the Army Done to Mitigate the Warning Signs of Stress on the Forces (2002–2007)?

In an effort to mitigate stress on the force, the Army implemented numerous efforts to optimize the current force structure and the manpower available for operations. These efforts have been undertaken as a result of current operational demands, Congressional findings, DoD guidance, and the Army’s efforts to be recognized as a cost-effective and streamlined organization. The Army has reorganized to increase the number of combat brigades, it has reduced the size of the institutional army and increased the operational army; it has re-aligned the force structure to relieve stress on the high demand/low density military occupational specialties; it has rebalanced the force structure between the active component and reserve component. While these force structure and manpower realignment efforts are an integral part

of optimizing the availability of forces and troops, the current pace of operations continue to exceed the force rotation planning factors.<sup>21</sup>

The Army is currently reorganizing 34 AC combat brigades into 42 brigade combat teams (BCTs), and 38 ARNG brigades into 34 BCTs. This reorganization will increase the number of active duty combat brigades available to conduct expeditionary operations; it will also provide the Army with more capable and robust combat units that can operate across a wider range of operations. DoD has reduced ARNG combat brigades to restructure its Cold War units and refocus and rebalance the force for the current and future fight. An important aspect of the reorganization is the change from a division-centric focus to a brigade-centric force. Each combat brigade is envisioned to become a self-sustaining, deployable unit.

In support of the brigade reorganization while the Army is engaged at War, Congress and the DoD have authorized the Army a temporary increase in active component end strength by 30,000 soldiers—from 482,500 to 512,000—through fiscal year 2011 (FY11). Yet, in order to support the high level of operations and meet the demand for forces over the last five years, the army has mobilized approximately 100,000 reservists per year. Reserve units have been mobilized to support pre-existing commitments and provide additional units necessary to conduct GWOT. The increased demand for soldiers and units has served to change the role of the reserves from a strategic reserve to an operational reserve.<sup>22</sup> Not since the Korean War and World War II, over sixty years ago, has the nation made such heavy demands on the reserve force, especially the Army Reserve and the Army National Guard!

In addition to the brigade reorganization, the Army has developed and implemented a plan for reducing the size and make-up of the institutional army. The Army is currently reviewing all military positions to determine if the job can be done by civilians or contractors or be eliminated. Twenty thousand (20,000) spaces are in the process of conversion to civilian positions which will provide additional manpower for approximately five brigades of soldiers. As noted earlier, extensive Cold War structure amounting to over 100,000 troops, primarily in the Army National Guard and Army Reserve (comprising the air defense, artillery, and armor units) were scheduled for demobilization and conversion beginning in FY05, with a targeted completion date of FY11. As a result of the modular redesigns and increased number of combat units, there is an additional requirement for support units. While a critical planning assumption calls for relying on contractors and host nation support, experiences in OIF should cause planners to reassess our reliance on contractors in certain combat conditions.

The Army increased the number of AC combat brigades from 33 to 43, received a temporary increase of 30,000 in end strength, mobilized approximately 100,000 reservists a

year over the last five years, eliminated 20,000 military spaces in the institutional Army, and took actions to rebalance 100,000 spaces between the AC and RC. Despite all of these actions, the Army is still unable to adhere to the OSD rotation policies for units and manpower. The following sections provide preliminary analysis regarding the numbers of troops required for current operations, the number of BCTs required to comply with OSD rotation policies and the number of troops required to provide a balanced Army for expeditionary operations.

#### What Does the Army Need to Prosecute the Global War on Terror And Other Conflicts?

The following methodology for assessing the optimal size of the army relies on a demand-versus-supply analysis and incorporates the DoD unit rotation planning factors. While this process is by its very nature imperfect and relies on the detailed work of other analysts, the results do illustrate the key issues for sustaining the all-volunteer army in light of current operations.

The key current factors impacting the demand for troops require a balance between the supply of troops in operations around the world and the demand for these troops. There are currently 1,050,000 soldiers in the total force; approximately 790,000 are available for combat. Table 2 below provides a basic analysis regarding the number of combat brigades required to support varying demands for brigades. For example, in order to support an annual demand for 17 to 20 brigades, in compliance with the OSD rotation planning factor of 1:2, requires between 51 and 60 brigades. The rotation range reflected on the top scale varies by level of deployment. A deployment scenario of 1 time period deployed and 1 time period at home would be known as 1:1. That deployment ration would require a smaller force since units could be rotated more quickly however; soldiers and units are unable to sustain such operations for an extended time period. Conversely, a more conservative rotation schedule of 1:3 means a unit would be employed 1 time period out of 4 periods. The number of brigades required to meet the rotational demand of 20, is 100 brigades. In the current environment, the Army could not resource 100 brigades.

# of Brigades Assumption	Active Component – Demand Rotation Alternatives (time periods)			
	1:1 50.00%	1:2 33.33%	1:3 25.00%	1:4 20.00%
<b>10</b>	20	30	40	50
<b>15</b>	30	45	60	75
<b>17</b>	34	<b>51</b>	68	85

20	40	60	80	100
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Table 2.

In order to support the current operations in Operation Iraqi Freedom (OIF), the Army needs 17 – 20 BCTs with an end strength ranging from 204,000 to 240,000 combat troops, not including the combat support functions or command and control (table 3).

Converted to Combat Soldiers – not including CS/CSS				
# of Brigades Assumption	1:1 50.00%	1:2 33.33%	1:3 25.00%	1:4 20.00%
10	80,000	120,000	160,000	200,000
15	120,000	180,000	240,000	300,000
17	136,000	204,000	272,000	340,000
20	160,000	240,000	320,000	400,000

Table 3.

When the combat support troops are added, the number of troops increases needed increased to approximately 510,000 to 726,000 for seventeen brigades (table 4). This analysis is based on the historic brigade slice of 10,000 to 14,000 soldiers. (A discussion of the brigade slice is provided latter in the paper). In order to comply with the OSD rotation planning factors and support only 10 brigades, the requirement is for approximately 300,000 to 427,000 soldiers.

Brigade Slice	10,000	14,250	1:1 50.00%		1:2 33.33%		1:3 25.00%	
	low threat	high threat						
10	100,000	142,500	200,000	285,000	300,000	427,500	400,000	570,000
15	150,000	213,750	300,000	427,500	450,000	641,250	600,000	855,000
17	170,000	242,250	340,000	484,500	510,000	726,750	680,000	969,000
20	200,000	285,000	400,000	570,000	600,000	855,000	800,000	1,140,000



Table 4.

The previous analysis provides some preliminary insights into the current demand for Army units and personnel, based on the demand for brigades (BCTs) and adhering to the DoD rotation policy.

The reserve component rotation planning factor is 1:5, or one deployed year every six years. When the DoD policy is applied to the available end strength of 510,000 Reserve Component troops required to support 25 deployed BCTs (190,000 USAR; 320,000 ARNG troops), the troops available for an extended mission total approximately 85,000 per rotation. In order to support the current demand for 100,000 per rotation, however, approximately 600,000 troops are required to sustain current operations. Thus it becomes clear that the current pace of operations in OIF and throughout the world is, in fact, placing a very high demand on the active component. Indeed, even with the current reserve force mobilizations, the policy planning factors cannot be met with the existing end strength and force structure.

When other operations and global commitments are included, the evidence of stress becomes even more compelling. While the level of hostility experienced in other operations might not be as high or volatile as in Iraq, units are still required to meet long-standing commitments. Currently, there are approximately 250,000 troops employed in operations outside of the continental United States. Table 5 provides a summary of the troops required to support current operations around the world. For the last four years, the Army has sustained these operations only by risking overuse of our soldiers.

Level of Army Commitments as of early FY07					
Location	Brigade	Estimated Troop Strength	Potential Duration (years)	Level of Hostility	Comments
Iraq and Kuwait	13-15	167,000	2-3	mid to high	expected to taper
Afghanistan	1-2 less than	9,600	5-7	mid to high	continues
The Philippines	1	1,150	5	mid	continues
Europe	2 BCTs	36,000	15	negligible	continues
Guantanamo Bay, Cuba		1,550	5	n/a	uncertain
Kosovo, Bosnia		5,150	5	Low	Reduced
Sinai Peninsula		750	15	Low	continues
South Korea	1 BCT	31,460	15	low - but unexpected	continues
Approximate Soldiers Employed		252,660			

Total (FY06)	Available	rotation policy		
Active		0.33	345,000	115,000
Reserve		0.17	458,500	76,417
Total available			803,500	191,417
Shortage of Soldiers				-61,243

Table 5.

While the total Army is approximately 1,037,000, the operating army, consists of approximately 790,000. Of this amount, 355,000 are in the active Army, while 435,000 are in the reserve component. Taking into account OSD planning factors, approximately 115,000 active soldiers and 76,000 reserves are available in a given year for operations. Current operations require approximately 253,000 soldiers, but there are only approximately 191,000 available or a shortfall of 60,000 in the first year. When operations are protracted, as they currently are, there is an immediate need to increase the available supply of soldiers. Table 5 illustrates the current shortfall. In a worst case scenario requiring a total mobilization of forces, this situation would, of course, be greatly exacerbated.

In a report to Congress, the Congressional Research Service (CRS) identified numerous proposals to Congress with regard to the growth of “the army from 10,000 positions to upwards of 83,700 for five years. Many of these recommendations were proposed and supported by Democratic members of Congress.”<sup>23</sup> Michèle Flournoy, a senior associate at the Center for Strategic and International Studies (CSIS), recently recommended to a Congressional committee—the Commission on National Guard and Reserves—that the Army needs to grow by at least 60,000 soldiers in order to conduct current operations and to sustain the viability of the all-volunteer army. She also recommended less reliance on the reserve component. Michael O’Hanlon, a defense analyst with Brookings Institute, argues that the deployable Army must be increased by 40,000. According to O’Hanlon, in order to sustain the all-volunteer army and avoid a mass exodus of soldiers, additional troops are required to support the current operations in Afghanistan and Iraq.<sup>24</sup> All of these studies validate the requirement for a larger army in order to support the National Military Strategy, current operations, and the all-volunteer army. These assessments, together with organizational quantitative assessments, demonstrate that Army

land forces in 2006 are not adequately sized to support the National Military Strategy, to conduct current operations, or to sustain the vitality of the all-volunteer army in the event of an attack on the United States.

#### Where Did the Army Take Risk in the Force Structure in the 1990's?

This analysis is based largely on the concept of the brigade slice. This parametric, the brigade slice, is defined as the number of troops required to support the employment of a brigade of combat forces. While there is some disagreement regarding the use of this metric because it does not account for some variables such as the maturity of a theater, the level of available host-nation support, or the likelihood of contractor support the metric does provide a plausible base point. As we develop detailed warfighting simulation models, the numerous variables can be assessed and analyzed. But as we conduct a macro-view of the Army, the parametric enables a limited but useful analysis of the Army's personnel needs.

The Government Accountability Office (GAO) completed a study in February 1997 that undertook an evaluation of the Army's ability to meet the two-conflict strategy, in part because the OSD had directed the Army to reduce its end strength to 475,000 in order to free up funds for modernization. The GAO study relied on the Total Army Analysis for the year 2003 (TAA03). At that time, the 1996 Army end-strength consisted of 495,000 active component soldiers in ten combat divisions and two Armored Cavalry Regiments, with thirty-three brigades and 603,000 reserve component soldiers, of which 230,000 were United States Army Reserve (USAR) and 373,000 were ARNG, consisting of fifteen enhanced separate brigades and eight combat divisions. The GAO findings were (1) the Army cannot use a smaller support force without accepting risk in carrying out current defense policy; and (2) improved requirements processes for support forces and the institutional Army could lead to a smaller AC force.<sup>25</sup>

The estimated need for conducting one major theater of war (MTW) was eighteen combat brigades, consisting of 260,000 soldiers or a brigade slice of 14,450 soldiers. Of the 188,000 support troops required for the operation, the Army accepted risk in depending on the arrival of 79,000 reservists, due to the mobilization time associated with the call-up of reserve components and the limited strategic lift available for transport.<sup>26</sup>

The GAO conducted another study in late 1998 in which TAA05 was reviewed to determine how risk had been mitigated. In TAA05, the Army increased the warfighting requirement from 672,000 to 747,176 troops to conduct operations in two major theaters. The increased requirement of 11.2 percent for warfighting troops reflected an increase of 40,000 combat troops and 32,000 combat support and service support troops. This increase accounted

for the forces required to conduct the first three phases of a campaign. But the GAO allowed that the true requirement may have been understated, since the last two phases of the operations were not included in the study.<sup>27</sup>

In the pre-modular army, there were 33 AC brigades and 36 ARNG brigades, yielding a total of 69 combat brigades available to the Army. Doctrine in the 1990s task-organized brigades within Division and Corp units, depending on mission analysis. The traditional brigade slice varied between 12,500 and 15,000 soldiers. As the Army reduced its size in the 1990s, the active component brigades had maintained a brigade slice, while only fifteen enhanced separate brigades (eSBs) in the ARNG were considered essential for combat. Thus, only 48 brigades were required to have a habitual combat slice related to them or the related support for long term independent operations. The other 23 brigades in the ARNG were divisional brigades and they were regarded as a strategic reserve. They were not considered an integral part of the planned war fight. The Army accepted risk in the Combat Support/Combat Service Support (CS/CSS) manpower in order to balance resources with requirements and maintain an affordable army.

In May 2005, the Congressional Budget Office undertook a study that examined the Army's capability to fight wars, sustain long-term deployments, and deploy rapidly with the current dependence on personnel and units in the reserve component.<sup>28</sup> The report's key findings were: (1) alternatives to improve capabilities require more personnel and higher cost; (2) although modularity increases combat power, it will require approximately 60,000 additional personnel to fill out existing combat structure; (3) the relationship between combat forces and support troops means that even a modest increase in combat units would require a sizable increase in support troops; (4) the Army is dependent upon reserves for relatively small operations; and (5) building "peacekeeping" formations would not likely to increase the deployment capability.<sup>29</sup>

According to the GAO, the estimated requirement to conduct and prevail in a major theater war for a period of six months requires as estimated 20 brigades and 285,000 troops, composed of 176,000 active component soldiers and 109,000 reserve component troops. The brigade slice amounts to 14,250 troops, of whom approximately 4,000 are in the brigade and 10,250 provide command and control, sustainment, and force protection. By comparison, Operation Desert Storm required 23 Army brigades, while Operation Iraqi Freedom began with eight Army brigades in the early phases of combat.<sup>30</sup>

Table 6 provides a summary of the events, the operational intent, the total estimated Army force structure and combat units. The brigade slice varies in size from approximately 15,700 in the mid-1990s, to approximately 10,000 soldiers per slice in current operations.<sup>31</sup>

A Review of the Brigade Slice					
Event/Source	Operational Intent	Total Estimated Army Troops	Total Combat Units	Bde Slice	Comments (contractors, HNS, level of conflict)
2MTW (TAA 0811 - date)	Win Decisively /Swiftly Defeat	501,000	32 Bdes	~ 15,700	
Desert Storm (CBO – 30 Sept 02)	Win Decisively	305,000	23 Bdes	~ 13,261	Approximately 100,00 contractors
MTW (CBO – May-05)	Win Decisively	317,000 285,000	22 Bdes 20 Bdes	~ 14,400 14,250	
Operation Iraqi Freedom (OIF)	Win Decisively	~120,000	8 Bdes	15,000	
OIF/Operation Enduring Freedom (open source)	Stabilize	170,000	17 Bdes	10,000	Does not include 100,000 Contractors (~ 15, 800)

Table 6.

## Conclusion

In 1941, Lieutenant Colonel Harold George provided insight regarding the dilemma in which force designers operate when their guidance is abstract and uncertain:

A man who wants to make a good instrument must first have a precise understanding of what the instrument is to be used for; and he who intends to build a good instrument of war must first ask himself what the next war will be like.<sup>32</sup>

No one can say for certain whether current operations are an indicator of future needs, but current operations do point to significant shortcomings in the existing force and provide insights regarding the requirement for building a future force that supports a more expeditionary mission set and that can sustain long-term operations over an extend period of time.

Clearly, given the numerous evolving threats that have emerged in the twenty-first century, the nation requires significant land force capabilities: to conduct a major theater war, to

maintain and support the rebuilding of a country, to provide forward support to existing operations, and to provide a robust homeland security and support force. Learning from the requirements to support current operations and conducting the likelihood of a worst-case scenario, the force must be built to succeed in a worst-case event as well as conduct operations for the most likely event. The Army must balance its total forces between the components in order to build a suitable and affordable force that can adequately provide security to the United States and its allies. The successful integration of AC and RC land forces in conducting OIF presents such an opportunity and a way ahead for the leadership of the army. Proposing a 1,500,000-man standing Army is unaffordable and unsustainable. However, designing a force with the capability as described above, can be done by carefully balancing the reserve component and active component.

As the United States has engaged the GWOT, it has sought to provide security for a larger geographic domain while conducting multiple operations across the globe. This expansion effort has led to an unprecedented demand on land forces, particularly on the Army. Formulating an affordable strategy, leveraging the existing depleted forces, providing for the regeneration of forces, and retaining a reserve for uncertainty in the future –all of these circumstances are significantly challenging our nation's leaders, especially in the DoD.

Time has proven, however, that the force structure assumptions and planning factors as envisioned in the 1990s must be revised and updated. In December 2006, the President appointed a new Secretary of Defense, the Honorable Robert M. Gates, who has immediately proposed a permanent increase of the country's land forces. He has recommended that the active army's end-strength be permanently increased by 65,000 spaces to a new end-strength of 542,000 by FY12. In addition to the active component's growth, he also proposed increasing the ARNG to 357,000 and the USAR to 210,000 spaces. This additional end strength will support an increase in the force structure of five additional BCTs and limited support structure required for an expeditionary army.

However, unless operational demand recedes, an end strength increase of 65,000 represents a marginal increase of 33% of the soldiers required in order to adhere to the OSD rotation policies. Thus, as a minimum, the Army must grow by 195,000 soldiers in order to sustain the required force for current operational demand.

With the emergence of a capabilities-based planning process to support the national military strategy, the requirement to build a force structure defined by capability signifies the need for a more robust Army with increased end-strength. While an Army of twenty-eight divisions and over 1,500,000 soldiers may represent a return to the past and not the future, an

army of eighteen divisions with just over 1,000,000 soldiers is barely adequate to maintain current operations and provide an adequate defense in the event of uncertain future conflicts.

Even if one looks at crude total force numbers, the army has cut its active structure from eighteen divisions to twelve divisions and total manpower from 800,000 to 480,000. While it committed only some twelve brigades out of thirty-two combat brigades ... it seems clear that the United States did not have the worldwide assets during the Iraq War to effectively fight two major regional contingencies.<sup>33</sup>

As the global war on terrorism stretches into its fourth year, DoD officials have made it clear that they do not expect the war to end soon.<sup>34</sup>

The credibility of the DoD and the U.S. Army remains high, however the pace of current operations serves to undermine that very credibility. In order to maintain the confidence of the American people and provide for the common defense, the U.S. Army must be increased.

### Endnotes

<sup>1</sup> John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton, 2001), 83.

<sup>2</sup> U.S. Secretary of Defense Donald Rumsfeld, "Guideline on the Use of Reserve Component," memorandum for Secretaries of the Military Departments, Washington, D.C. July 2003.

<sup>3</sup> Lynn E. Davis, *Stretched Thin- Army Forces for Sustained Operations* (Santa Monica, CA: RAND, 2005), page # .

<sup>4</sup> John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York, W.W. Norton, 2001), 84.

<sup>5</sup> David Kassing, *The U.S. Army and the New National Security Strategy*, MR-1657-A (Santa Monica, CA, Rand, 2003), 256.

<sup>6</sup> John M. Collins, *Military Strategy*, (Dulles, VA: Bassey's Inc, 2002), 71.

<sup>7</sup> David Kassing, *The U.S. Army and the New National Security Strategy*, MR-1657-A (Santa Monica, CA, Rand, 2003), 256.

<sup>8</sup> Paul Lettow, *Presidnet Reagan's Legacy and U.S. Nuclear Weapons Policy*, (Washington, D.C., Heritage Foundation, 2006), 1 .

<sup>9</sup> Definition of Peace Dividend, "available from Internet: [http://www.investorwords.com/3644/peace\\_dividend.html](http://www.investorwords.com/3644/peace_dividend.html), accessed 15 March 2007.

<sup>10</sup> Globalsecurity.org, available from <http://www.globalsecurity.org>, Internet accessed 25 February 2007.

<sup>11</sup> U.S. General Accounting Office, *Force Structure*, GAO-NSIAD-97-66, (Washington, D.C: U.S. General Accounting Office, February 1997), page 20.

<sup>12</sup> Michael Bell, *The Exigencies of Global, Integrated Warfare: The Evolving Role of The CJCS and His Dedicated Staff*, (Carlisle, PA, U.S. Army War College, May, 2004), 25.

<sup>13</sup> U.S. Department of Defense, available from [http://www.defenselink.mil/news/Dec2001/n12112001\\_200112115.html](http://www.defenselink.mil/news/Dec2001/n12112001_200112115.html); Internet accessed 20 February, 2007, - President Bush leverages the success of the battles in Afghanistan and provides the public vision for changing the military.

<sup>14</sup> U.S. Department of Defense, *Base Realignment and Closure Report* (Washington, D.C. U.S. Department of Defense, 2005), Force Structure Table.

<sup>15</sup> U.S. Department of Defense, *Quadrennial Defense Review* (Washington, D.C.: U.S. Department of Defense, 2001), 18.

<sup>16</sup> U.S. General Accounting Office, *Force Structure*, GAO-NSIAD-97-66, (Washington, D.C: U.S. General Accounting Office, February 1997), 5.

<sup>17</sup> U.S. Department of Defense, *Quadrennial Defense Review* (Washington, D.C.: U.S. Department of Defense, 2001), 22.

<sup>18</sup> David Kassing, *Resourcing The Twenty First Century Army*, (Santa Monica, CA, Rand, 2003) 260.

<sup>19</sup> U.S. Department of Defense, *Quadrennial Defense Review* (Washington, D.C.: U.S. Department of Defense, 2006), preface.

<sup>20</sup> U.S. Department of Defense, *Quadrennial Defense Review* (Washington, D.C.: U.S. Department of Defense, 2006), 46.

<sup>21</sup> The White House, available from <http://www.whitehouse.gov/news/releases/2007/01/20070111.html>; Internet accessed 25 February 2007, - Briefing by the Secretary of State, Secretary of Defense, and Chairman of the Joint Chiefs of Staff

<sup>22</sup> U.S. Department of the Army, available from <http://www.army.mil/-speeches/2006/12/14/989-statement-by-general-peter-schoomaker-chief-of-staff-united-states-army-before-the-commission-on-national-guard-and-reserves>; Internet accessed 10 February 2007, - Statement by General Peter Schoomaker, Chief of Staff United States Army, before the Commission on National Guard and Reserves.

<sup>23</sup> Edward F. Bruner, *What Is the Appropriate Size of the US Army for the United States?* (Washington D.C: Congressional Research Service, 28 May, 2004), 4.

<sup>24</sup> Michael O'Hanlon, "The Need to Increase the Size of the Deployable Army", *Parameters*, Volume 34 (Autumn 2004), 7.

<sup>25</sup> U.S. General Accounting Office, *Force Structure*, GAO-NSIAD-97-66, (Washington, D.C: U.S. General Accounting Office, February, 1997), 5.



<sup>26</sup> U.S. General Accounting Office, *Force Structure*, GAO-NSIAD-97-66, (Washington, D.C.: U.S. General Accounting Office, February, 1997), 59.

<sup>27</sup> U.S. General Accounting Office, *Force Structure*, GAO/NSIAD-99-47, (Washington, D.C.: U.S. General Accounting Office, March 1999), 7.

<sup>28</sup> U.S. Congressional Budget Office, *Options to Restructuring the Army* (Washington, D.C.: Congressional Budget Office, May 2005), preface.

<sup>29</sup> U.S. Congressional Budget Office, *Options to Restructuring the Army* (Washington, D.C.: Congressional Budget Office, May 2005), 35.

<sup>30</sup> U.S. Congressional Budget Office, *Options to Restructuring the Army* (Washington, D.C.: Congressional Budget Office, May 2005), 16.

<sup>31</sup> John R. Brinkerhoff, *To what Extent are the 77 BCTs in the Army Force Program for End FY2008 supported for sustained combat operations?* (Arlington, VA, Institute for Defense Analysis, February 2005).

<sup>32</sup> Colin S. Gray, *Explorations in Strategy* (Westport, CT: Praeger, 1996), 110.

<sup>33</sup> Anthony H. Cordesman, *The Iraq War Strategy, Tactics and Military Lessons* (Washington, D.C.: Center for Strategic and International Studies, 2003), 167.

<sup>34</sup> U.S. General Accounting Office, *Military Personnel*, GAO/NSIAD-99-47, (Washington, D.C.: U.S. General Accounting Office, February 2005), 7.

